

**NATURAL RESOURCES CONSERVATION SERVICE  
CONSERVATION PRACTICE STANDARD**

**HEDGEROW PLANTING**

(Ft)

Code 422

**DEFINITION**

Establishment of dense vegetation in a linear design to achieve a natural resource conservation purpose.

**PURPOSES**

To provide one or more of the following functions:

- Food and cover for aquatic organisms that live in watercourses with bank-full width less than 5 feet.
- Food, cover and corridors for terrestrial wildlife.
- Living fences
- Boundary delineation
- Contour guidelines
- Screens and barriers to noise and dust
- Improvement of landscape appearance

**CONDITIONS WHERE PRACTICE APPLIES**

This practice may be applied in, across, or around agricultural fields and other open areas such as urban and industrial areas.

This practice does not apply to plantings for which other standards are applicable as field border (Code 386) or riparian forest buffer (Code 391).

**CRITERIA**

**General Criteria Applicable to All Purposes**

Hedgerows shall be established using woody plants, or perennial grasses producing erect stems attaining average heights of at least 3 feet. For species selection, see table Conservation Plants and Their Uses (USDA-NRCS, PR & USVI), filed in Section II of the FOTG.

Avoid plant that may be alternate host to undesirable pest or that may be considered invasive or undesirable. Species diversity should be encouraged in order to minimize problems due species-specific pest.

Species used must be suitable and adapted to the soils, climate and purpose. Although woody vegetation must be included as a minimum, best results will be achieved where there is a mixture of trees, shrubs, and herbaceous species.

Plantings consisting of two or more species, especially locally native plant species, shall be encouraged.

If additional wildlife habitat is desired, consider adding a herbaceous field border adjacent to the hedgerow to provide food and cover for wildlife.

Hedgerow shall be a minimum of 6 feet wide if seeded, or a minimum of one row if planted with seedlings or large stock. Shrub and/or tree species shall be used.

Conservation practice standards are reviewed periodically, and updated if needed. To obtain the current version of this standard, contact the Natural Resource Conservation Service.
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Plant Type	Spacing (feet) for	
	Visual screens	Wildlife habitat, landscaping, and other use
Shrub *	2-4	4-8
Deciduous tree	5-8	8-15
Evergreen tree	4-6	6-15

\* Use a spacing of 1 foot between rows if drilling seeds of leguminous shrubs

Establishment of vegetation by planting is the preferred method for creating hedgerows.

Only viable, high quality seed and planting stock shall be used.

The method of planting shall include hand or machine planting techniques, suited to achieving proper depths and placement for the selected species.

#### **Additional Criteria for Living Fences**

Selected plants shall attain a size adequate to create a barrier to contain livestock or humans, as needed.

If the purpose is to feed livestock, selected plants shall not be poisonous or hazardous to animals

#### **Additional Criteria for Boundary Delineation**

Hedgerows shall be aligned along boundaries of fields, or forestlands to differentiate land management units.

#### **Additional Criteria to Establish Contour Guidelines**

Hedgerows shall be aligned so they provide permanent contour markers supporting implementation of Contour Farming (330) or Contour Stripcropping (585) Conservation Practices. Refer to those conservation practices standards for alignment criteria.

The grade of the hedgerow shall be aligned as closely as possible to the contour. This will allow adjacent cropped strips to be designed to achieve the greatest erosion reduction possible.

Hedges planted on the contour, or parallel to cultivated cropland should not exceed 6 or 8 feet in height because shade produced may interfere with crop growth.

#### **Additional Criteria to Provide Wildlife Food and Cover**

Hedgerows developed for wildlife should be a minimum of 15 feet wide, including 2 or more rows of at least two trees and/or shrub species. Locally native species shall be encouraged. If ground-nesting birds are targeted, even wider widths should be used to reduce nest predation.

All plant species used should benefit wildlife as either food or cover. Native species will be used whenever possible. At least 25% of the plants selected will be evergreen to provide year-round cover. A variety of fruit and nut producing trees and shrubs will be used.

Any renovation activities within the hedgerow will be scheduled to accommodate reproduction and other requirements of target wildlife species.

In plantings adjacent to small watercourses, the plantings shall be site-adapted, large enough at maturity, and installed close enough to shade the watercourse.

#### **Additional Criteria to Provide Screens, Noise and Dust Barriers**

Screening hedgerows provide privacy, hide unsightly areas from view or reduce noise.

At least one row of the plants selected will be evergreen plants, providing year-round screening.

Hedgerows shall be located where they most completely obstruct a line of sight, offensive sound, or dust.

Selected plants shall attain a height and fullness sufficient to break the line of sight, or baffle sound and dust.

#### **Additional Criteria For Improvement of Landscape Appearance**

The hedgerow design shall meet the aesthetic objectives of the landowner.

Plants shall be selected based upon the landowner's preferences for color, texture, and growth habit.

Aesthetic values of the plants selected will be considered. At least some of the plants will provide colorful foliage, flowers, and/or fruits during part of the year.

### **PLANNING CONSIDERATIONS**

#### **General**

Hedgerows can be planned in combination with other practices to develop complete conservation systems that enhance landscape aesthetics, reduce soil erosion, improve sediment trapping, improve water quality, and provide wildlife habitat.

Hedgerows following land contours create meandering lines on the landscape, produce a natural appearance, and increase the availability of "edge" wildlife habitats.

Hedgerows containing a mixture of native shrubs and small trees provide greatest environmental benefits.

Consider the amount of shading a hedgerow will provide at maturity. Shading may impact growth of adjacent plants, microclimate, and aesthetics.

Limiting renovation events to one-third of a hedgerow's length or width will prevent sudden elimination of the practice's wildlife habitat function.

Periodic root pruning can reduce nutrient and water robbing from adjacent cropland.

Consider avoiding the use of plants that spread by root suckers as hedgerow may expand beyond the desired treatment area.

Hedgerows are natural wildlife attractors therefore, wildlife enhancement should be

considered during planning, even when wildlife is not the primary purpose. Targeted wildlife needs should be considered when selecting plant species.

The use of native, warm-season perennial grasses should be encouraged in all hedgerows. See Caribbean Area NRCS Pasture and Hayland planting standard for planting information.

Hedgerows enhance aesthetics around fields, can help reduce erosion from wind and water, can assist in sediment trapping, and can provide a harbor for beneficial and/or pest insects.

#### **Living Fences**

Thorny shrubs and trees can improve a living fence's barrier effect.

#### **Wildlife Food, Cover, and Corridors**

Hedgerows can provide travel lanes, or corridors that allow wildlife to move safely across a landscape.

Generally, wider corridors accommodate more wildlife use.

Linking fragmented habitats may increase wildlife use of an area.

In grassland ecosystems, hedgerows may adversely affect area-sensitive nesting birds by fragmenting habitat patches and increasing the risk of predation.

Hedgerows can complement the availability of naturally occurring wildlife foods.

Hedgerows can provide wildlife with cover for feeding, nesting, and caring for young.

Dense or thorny shrub thickets provide songbirds with important nesting sites and a refuge to escape predators.

Establishment of evergreen plants provides year-round concealment and thermal cover for wildlife.

Establishment of herbaceous vegetation along the edges of a hedgerow can further enhance the habitat functions of a hedgerow.

Installation of artificial nest boxes with predator guards can encourage cavity-nesting birds and small mammals to utilize a hedgerow.

### **Screens and Noise Barriers**

From eye-level, hedgerows reduce the line-of-sight across open areas, concealing objects behind them from view.

Consider the design from viewpoints on both sides of the screen.

Locate noise barriers as close to the source of noise as possible.

Combination of shrubs and/or trees can create more effective screens than single species plantings.

Evergreens provide foliage that can maintain a screen's year-round effectiveness.

### **Improving Landscape Appearance**

Consider plants' seasonal display of colors on bark, foliage, flowers, and fruit.

Consider plants' growth habits (outline, height and width).

## **PLANS AND SPECIFICATIONS**

Plans and specifications shall be prepared in accordance with the criteria of this standard and shall describe the requirements for installing the practice.

Specifications shall be recorded using approved specification sheets, job sheets, and narrative statements in the conservation plan.

Specifications shall include, but not be limited to the following:

1. Plan map showing the location of the practice.
2. A sketch map showing the planting patterns to be used.
3. Plant species to be used and numbers of each.
4. Land preparation to be performed.

5. Liming and fertilization requirements.

6. Planting rates, spacing, and dates.

7. Control of competition needed for establishment.

## **OPERATION AND MAINTENANCE**

Competing vegetation will be controlled until the woody plants are established.

Replanting will be required when survival is inadequate to provide enough woody plants to form a continuous hedge.

Existing hedgerows may be improved by removing or topping selected less desirable trees or shrub, thus improving growing conditions for the remaining species. Most desirable species can also be interplant in the hedgerow.

Livestock shall be excluded as necessary so that the vegetative cover can be established and maintained to meet its intended purpose.

Supplemental watering may be desirable to ensure adequate survival.

Damaging pests are monitored and controlled.

Periodic applications of nutrients may be needed to maintain plant vigor.

Prevent uncontrolled spreading by using mechanical methods or herbicides to destroy seedlings

Noxious weeds shall be controlled as required by federal and state laws.

Renovation activities shall be scheduled to prevent disturbance during the wildlife nesting season.

When renovation of the hedgerow is needed, use herbicides, or mechanical means to set back the vegetation to an earlier stage of succession. To preserve wildlife habitat, renovate only one-third of the length of the hedgerow at a time, allowing re-growth before proceeding to the next section.